

## Freeform Search

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<b>Database:</b>	US Pre-Grant Publication Full-Text Database US Patents Full-Text Database US OCR Full-Text Database EPO Abstracts Database JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins
<b>Term:</b>	L15 and (\$8steroid same (anticholinergic or bronchdilator))
<b>Display:</b>	20 Documents in <b>Display Format:</b> [-] Starting with Number [1]
<b>Generate:</b>	<input type="radio"/> Hit List <input checked="" type="radio"/> Hit Count <input type="radio"/> Side by Side <input type="radio"/> Image

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### Search History

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DATE: Monday, December 25, 2006 [Purge Queries](#) [Printable Copy](#) [Create Case](#)

Set

Name Query

side by

side

*DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR*

L17 L15 and (\$8steroid same (anticholinergic or bronchdilator))

L16 L15 (\$8steroid same (anticholinergic or bronchdilator))

L15 L14 NOT gelatin\$3

L14 L13 NOT L9

L13 L12 and ((dose bed" or blister or cartridge) same (foil or sheet))

L12 ("dry powder")

*DB=PGPB,USPT; PLUR=YES; OP=OR*

L11 L10 and ((dose bed" or blister or cartridge) same (foil or sheet))

L10 L9 and ("dry powder")

L9 424/46.ccls.

L8 (((Sven near Calander) AND @pd>20060930) AND @pd>20061118) AND @pd>20061214

L7 (Claes near Friberg) AND @pd>20060823

L6 (((Mattias near Myrman) AND @pd>20060930) AND @pd>20061118) AND @pd>20061214

L5 (((Thomas near Nilsson) AND @pd>20060930) AND @pd>20061118) AND @pd>20061214

*DB=USPT; PLUR=YES; OP=OR*

L4 6026809.pn.

*DB=PGPB,USPT; PLUR=YES; OP=OR*

L3 ("20020017295"|"20020183292"|"20030109510"|"20040258625"|"20050042174"|"20050042175"

*DB=USPT; PLUR=YES; OP=OR*

L2 6789123.pn.

L1 67891234.pn.

END OF SEARCH HISTORY



# PALM INTRANET

Day : Monday  
Date: 12/25/2006

Time: 21:32:36

## Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.

Additionally, enter the **first few letters** of the Inventor's First name.

**Last Name**

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Enter the **first few letters** of the Inventor's Last Name.

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# PALM INTRANET

Day : Monday  
Date: 12/25/2006

Time: 21:32:36

## Inventor Name Search

Enter the **first few letters** of the Inventor's Last Name.

Additionally, enter the **first few letters** of the Inventor's First name.

**Last Name**

**First Name**

Calander

Sven

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(FILE 'HOME' ENTERED AT 21:35:33 ON 25 DEC 2006)

FILE 'CPLUS, MEDLINE, USPATFULL' ENTERED AT 21:35:51 ON 25 DEC 2006

L1       33794 S (DRY(W) POWDER)  
L2       1193 S L1(P) (((DOSE(W)BED) OR BLISTER OR CARTRIDGE))  
L3       93 S L2 (P) (FOIL OR SHEET)  
L4       0 S L3 (P) (STEROID OR ANTICHOLINERGIC OR BRONCHODILATOR)  
L5       2 S L3 (P) (COMBIN? (5A) DOSE)  
L6       2 DUPLICATE REMOVE L5 (0 DUPLICATES REMOVED)  
L7       93 DUPLICATE REMOVE L3 (0 DUPLICATES REMOVED)  
L8       93 FOCUS L7 1-  
L9       91 S L8 NOT L6  
L10      72 S L9 AND (BLISTER)

L6 ANSWER 1 OF 2 USPATFULL on STN  
TI Administration of medicinal dry powders  
AB A method as well as a therapeutic metered combined dose are disclosed for a combined administration of medicinal dry powders. A metered medicinal dry powder combined dosage comprising at least two medicaments of separate dry powder formulations is prepared, whereby the metered powder quantity per medicament is deposited in a dose forming step creating the medicinal combined dose. The deposits of the at least two medicaments are suitably kept separated from each other, such that the medicaments cannot detrimentally interact after forming of the combined dose, and the medicinal combined dose is introduced into an inhaler device for a delivery of the powder dose during the course of a single inhalation.

The therapeutic metered medicinal, combined dosage of finely divided dry medication powders disclosed comprises metered quantities of at least two medicaments, separately deposited and the medicinal combined dosage is adapted for a user initiated delivery of the dosage during a single inhalation through an inhaler device. The at least two medicaments of the medicinal combined dosage will generally be aerosolized simultaneously or sequentially during the inhalation such that a large proportion of each medicament will settle in the intended target area of the airways and lungs of a user.

ACCESSION NUMBER: 2004:326806 USPATFULL  
TITLE: Administration of medicinal dry powders  
INVENTOR(S): Nilsson, Thomas, Mariefred, SWEDEN  
Myrman, Mattias, Stockholm, SWEDEN  
Friberg, Claes, Akers Styckebruk, SWEDEN  
Calander, Sven, Straengnaes, SWEDEN  
PATENT ASSIGNEE(S): Microdrug AG, Hergiswil NW, SWITZERLAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004258625	A1	20041223
APPLICATION INFO.:	US 2003-603819	A1	20030626 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	SE 2003-1815	20030619
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	10 Drawing Page(s)	
LINE COUNT:	763	

L6 ANSWER 2 OF 2 USPATFULL on STN  
TI Combined doses  
AB The present invention discloses a method and a pharmaceutical dry powder combined dose for the prophylaxis or treatment of a respiratory disorder in a mammalian host by inhalation of a metered dry powder combined dose of finely divided dry medication powders. At least one dry powder medicament is selected from a first group of bronchodilating medicaments and at least one dry powder medicament from a second group of anti-inflammatory medicaments. A metered dry powder medicinal combined dose comprising separately metered deposits of medicinally suitable quantities of each of the selected medicaments is prepared, in which the sum of the metered deposits constitutes the metered quantities of powder of the combined dose and the medicinal combined dose is introduced into an adapted inhaler device for a generally simultaneous delivery of the

medicinal combined dose during the course of a single inhalation by a user, such that the delivered medicinal combined dose is composed of a high proportion of mixed de-aggregated fine particles of the selected medicaments, whereby an desired therapeutic or treating effect to the user is achieved.

ACCESSION NUMBER: 2004:326805 USPATFULL  
TITLE: Combined doses  
INVENTOR(S): Nilsson, Thomas, Mariefred, SWEDEN  
Myrman, Mattias, Stockholm, SWEDEN  
Friberg, Claes, Akers Styckebruk, SWEDEN  
Calander, Sven, Strangnas, SWEDEN  
PATENT ASSIGNEE(S): Microdrug AG, Hergiswil, SWITZERLAND (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004258624	A1	20041223
APPLICATION INFO.:	US 2003-603818	A1	20030626 (10)
	NUMBER	DATE	
PRIORITY INFORMATION:	SE 2003-1816	20030619	
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940 DUKE STREET, ALEXANDRIA, VA, 22314		
NUMBER OF CLAIMS:	17		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	854		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L10 ANSWER 4 OF 72 USPATFULL on STN  
TI PACKAGING AND DELIVERY OF PHARMACEUTICALS AND DRUGS  
AB A blister pack for use with inhalation therapy inhalers comprises an elongate bottom element having an overlying top element defining a plurality of spaced top crowned areas containing powder or liquid medications or drugs.  
ACCESSION NUMBER: 2006:278083 USPATFULL  
TITLE: PACKAGING AND DELIVERY OF PHARMACEUTICALS AND DRUGS  
INVENTOR(S): Gumaste, Anand V., Princeton Junction, NJ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2006237011	A1	20061026
APPLICATION INFO.:	US 2006-425097	A1	20060619 (11)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2001-888837, filed on 25 Jun 2001, GRANTED, Pat. No. US 7080644		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-214578P	20000628 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAYES, SOLOWAY P.C., 3450 E. SUNRISE DRIVE, SUITE 140, TUCSON, AZ, 85718, US	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	419	

L10 ANSWER 17 OF 72 USPATFULL on STN  
TI Inhaler using pods  
AB A medicament container for carrying a metered, finely divided, dry powder medication dose is disclosed. The medicament container, which is intended for administration by a dry powder inhaler device, constitutes a pod presents a bottom surface acting as a dose bed adapted for receiving a metered medication dose. The metered dose, carried by the pod, is protected from foreign matter, particularly moisture, after a sealing of the pod with a high barrier seal foil, which transforms the pod into a high barrier container. Furthermore the pod is formed such that the pod sealing foil can be slit open from a point of penetration at a first pod end to a point of exit at a second pod end by a cutter set in motion relative to the pod.

ACCESSION NUMBER: 2005:321466 USPATFULL  
TITLE: Inhaler using pods  
INVENTOR(S): Friberg, Claes, Akers Styckebruk, SWEDEN  
Kax, Lars, Nykvarn, SWEDEN  
Myrman, Mattias, Stockholm, SWEDEN  
PATENT ASSIGNEE(S): Microdrug AG, Hergiswil NW, SWITZERLAND (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005279356	A1	20051222
APPLICATION INFO.:	US 2004-898372	A1	20040726 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	SE 2004-1612	20040618
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C., 1940	

DUKE STREET, ALEXANDRIA, VA, 22314, US  
NUMBER OF CLAIMS: 28  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 8 Drawing Page(s)  
LINE COUNT: 843

L10 ANSWER 29 OF 72 USPATFULL on STN

TI Dry powder inhalers, related blister devices, and associated methods of dispensing dry powder substances and fabricating blister packages  
AB The present invention includes dry powder inhalers for dispensing and/or holding inhalant formulated dry powder substances and associated fabrication and dispensing methods that can employ an amplitude modulated non-linear signal comprising a plurality of superimposed frequencies, the frequencies corresponding to a priori flow characteristic frequencies of the dry powder being dispensed. The present invention also includes pocket-sized inhalers with an elastomeric flexible pivoting cover.

ACCESSION NUMBER: 2005:147678 USPATFULL

TITLE: Dry powder inhalers, related blister devices, and associated methods of dispensing dry powder substances and fabricating blister packages

INVENTOR(S): Crowder, Timothy M., Durham, NC, UNITED STATES  
Hickey, Anthony J., Chapel Hill, NC, UNITED STATES  
Warden, Jeffrey A., Chapel Hill, NC, UNITED STATES

NUMBER KIND DATE

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PATENT INFORMATION: US 2005126569 A1 20050616

APPLICATION INFO.: US 2005-43363 A1 20050126 (11)

RELATED APPLN. INFO.: Division of Ser. No. US 2003-434009, filed on 8 May 2003, PENDING

NUMBER DATE

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PRIORITY INFORMATION: US 2002-379521P 20020510 (60)  
US 2002-392671P 20020627 (60)

US 2003-440513P 20030116 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Julie H. Richardson, Myers Bigel Sibley & Sajovec,  
P.A., P. O. Box 37428, Raleigh, NC, 27627, US

NUMBER OF CLAIMS: 49

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Page(s)

LINE COUNT: 1760

L10 ANSWER 31 OF 72 USPATFULL on STN

TI Blister packages with frames and associated methods of fabricating dry powder drug containment systems

AB Dry powder blister packages include sealed blisters with a piezoelectric active layer that flexes to vibrate the dry powder in a blister to facilitate active dispersion.

ACCESSION NUMBER: 2005:128215 USPATFULL

TITLE: Blister packages with frames and associated methods of fabricating dry powder drug containment systems

INVENTOR(S): Hickey, Anthony James, Chapel Hill, NC, UNITED STATES  
Crowder, Timothy, Durham, NC, UNITED STATES  
Warden, Jeffrey Alan, Raleigh, NC, UNITED STATES  
Johnson, Keith Arthur, Durham, NC, UNITED STATES  
Ketner, Mark Ennis, Apex, NC, UNITED STATES  
Fording, Jay Kinsley, Matthews, NC, UNITED STATES  
Garten, Michael Duane, Charlotte, NC, UNITED STATES

Riley, William Myles, Richmond, VA, UNITED STATES  
Anderson, Sean Derek, Richmond, VA, UNITED STATES  
Ferris, Bruce Seymour, Richmond, VA, UNITED STATES  
Rockwell, Paul Gilbert, Chesterfield, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005109659	A1	20050526
APPLICATION INFO.:	US 2004-970549	A1	20041021 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-514727P	20031027 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MYERS BIGEL SIBLEY & SAJOVEC, PO BOX 37428, RALEIGH, NC, 27627, US	
NUMBER OF CLAIMS:	56	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	19 Drawing Page(s)	
LINE COUNT:	1489	

L10 ANSWER 33 OF 72 USPATFULL on STN  
TI Method for forming a laminate assembly and products formed thereby  
AB A laminate assembly, comprising a base sheet having at least one blister formed therein, a pharmaceutical composition displaced in said blister, a lid sheet bonded to said base sheet to form a primary seal therebetween, thus forming a primarily sealed laminate assembly; said primary sealed laminate assembly having a secondary seal formed therein, and related manufacturing method and system of manufacture.  
ACCESSION NUMBER: 2005:121298 USPATFULL  
TITLE: Method for forming a laminate assembly and products formed thereby  
INVENTOR(S): Clark, Verna Lo, Raleigh, NC, UNITED STATES  
Van Oort, Michael Mary, Durham, NC, UNITED STATES  
Walker, Richard Ian, Ware, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005103678	A1	20050519
APPLICATION INFO.:	US 2003-508396	A1	20030325 (10)
	WO 2003-US9050		20030325

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-60368107	20020326
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DAVID J LEVY, CORPORATE INTELLECTUAL PROPERTY, GLAXOSMITHKLINE, FIVE MOORE DR., PO BOX 13398, RESEARCH TRIANGLE PARK, NC, 27709-3398, US	
NUMBER OF CLAIMS:	109	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	1873	

L10 ANSWER 34 OF 72 USPATFULL on STN  
TI Dry powder inhalers, related blister package indexing and opening mechanisms, and associated methods of dispensing dry powder substances  
AB Dry powder inhalers with a multi-dose dry powder package for dispensing pharmaceutical grade formulations of inhalable dry powder, include: (a) a blister package comprising a plurality of spaced apart

sealed blisters thereon, each blister having a projecting ceiling and a floor defining a blister channel therebetween, the blister channel comprising a dry powder therein; (b) a movable blade cartridge holding a blade at a forward portion thereof; and (c) an extendable mouthpiece attached to the movable blade cartridge. In operation, a user pulls the mouthpiece outward and then pushes the mouthpiece inward to cause the blister package to advance to position a blister in a selected dispensing position in the inhaler and to cause the blade cartridge to move the blade across a blister ceiling held in the dispensing position in the inhaler to thereby open the blister held in the dispensing position.

ACCESSION NUMBER: 2005:120961 USPATFULL  
TITLE: Dry powder inhalers, related blister package indexing and opening mechanisms, and associated methods of dispensing dry powder substances  
INVENTOR(S): Hickey, Anthony James, Chapel Hill, NC, UNITED STATES  
Crowder, Timothy, Durham, NC, UNITED STATES  
Warden, Jeffrey Alan, Raleigh, NC, UNITED STATES  
Johnson, Keith Arthur, Durham, NC, UNITED STATES  
Ketner, Mark Ennis, Apex, NC, UNITED STATES  
Fording, Jay Kinsley, Matthews, NC, UNITED STATES  
Garten, Michael Duane, Charlotte, NC, UNITED STATES  
Riley, William Myles, Richmond, VA, UNITED STATES  
Anderson, Sean Derek, Richmond, VA, UNITED STATES  
Ferris, Bruce Seymour, Richmond, VA, UNITED STATES  
Rockwell, Paul Gilbert, Chesterfield, VA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005103337	A1	20050519
APPLICATION INFO.:	US 2004-970154	A1	20041021 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-514671P	20031027 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MYERS BIGEL SIBLEY & SAJOVEC, PO BOX 37428, RALEIGH, NC, 27627, US	
NUMBER OF CLAIMS:	56	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	26 Drawing Page(s)	
LINE COUNT:	1554	

L10 ANSWER 70 OF 72 USPATFULL on STN  
TI Dry powder inhaler delivery system  
AB A powder storage and delivery system for a drug powder inhaler has a carrier disk with a blister shell sealed by a shear layer. A tab is adhered to the shear layer, underneath the blister shell. The carrier disk is placed into a dry powder inhaler. An actuator pushes against the tab, causing the shear layer to tear away, releasing the powder drug contents from the blister into the dry powder inhaler. A disk carrier has bursting blisters with a brittle blister shell sealed with a foil lid, and covered by a plate. An actuator moves against the plate, causing the plate to buckle and the blister shell to burst open, releasing powdered drug into the dry powder inhaler.

ACCESSION NUMBER: 2000:23338 USPATFULL  
TITLE: Dry powder inhaler delivery system  
INVENTOR(S): Eisele, Robert F., Laguna Niguel, CA, United States  
Cameron, Allan, Santa Monica, CA, United States  
Titzler, David, Newbury Park, CA, United States

PATENT ASSIGNEE(S): Porche, Leonard, Simi Valley, CA, United States  
Dura Pharmaceuticals, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6029663		20000229
APPLICATION INFO.:	US 1997-841994		19970422 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-428960, filed on 24 Apr 1995, now patented, Pat. No. US 5622166		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lewis, Aaron J.		
LEGAL REPRESENTATIVE:	Lyon & Lyon LLP		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	249		

L10 ANSWER 71 OF 72 USPATFULL on STN

TI Dry powder inhaler delivery system  
AB A powder storage and delivery system for a drug powder inhaler has a carrier disk with a blister shell sealed by a shear layer. A tab is adhered to the shear layer, underneath the blister shell. The carrier disk is placed into a dry powder inhaler. An actuator pushes against the tab, causing the shear layer to tear away, releasing the powder drug contents from the blister into the dry powder inhaler. A disk carrier has bursting blisters with a brittle blister shell sealed with a foil lid, and covered by a plate. An actuator moves against the plate, causing the plate to buckle and the blister shell to burst open, releasing powdered drug into the dry powder inhaler.

ACCESSION NUMBER: 97:32964 USPATFULL  
TITLE: Dry powder inhaler delivery system  
INVENTOR(S): Eisele, Robert F., Laguna Niguel, CA, United States  
Cameron, Allan, Santa Monica, CA, United States  
Titzler, David, Newbury Park, CA, United States  
Porche, Leonárd, Simi Valley, CA, United States  
PATENT ASSIGNEE(S): Dura Pharmaceuticals, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5622166		19970422
APPLICATION INFO.:	US 1995-428960		19950424 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Lewis, Aaron J.		
LEGAL REPRESENTATIVE:	Lyon & Lyon		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	23 Drawing Figure(s); 7 Drawing Page(s)		
LINE COUNT:	302		